Title (en)

Procedure and device for determining the stress potential of a mechanical loaded construction element.

Title (de)

Anordnung und Verfahren zur Bestimmung des Schädigungsniveaus eines mechanisch belasteten Bauteils.

Title (fr)

Procédé et dispositif pour déterminer le niveau de contrainte dans une pièce de construction, chargée mécaniquement.

Publication

EP 0612990 A3 19950104 (DE)

Application

EP 93115220 A 19930922

Priority

DE 4305951 A 19930226

Abstract (en)

[origin: EP0612990A2] In order to be able to determine exactly the level of damage of a mechanically loaded construction element (2) with the aid of a sample part (4) connected to the construction component and alterable in terms of its constructional make-up under the influence of the construction component loadings, and a test device detecting the structural make-up of the sample part and a test data evaluation unit determining from the test results the previous construction component loadings for determining the level of damage, with a low cost in terms of time and apparatus, the sample part according to the invention consists of a metastable austenitic steel, whose volumetric proportion of deformation-induced alpha '-martensite is measured with the help of a Förster probe (6). <IMAGE>

IPC 1-7

G01L 1/12

IPC 8 full level

G01L 1/00 (2006.01); **G01L 1/12** (2006.01)

CPC (source: EP)

G01L 1/005 (2013.01); **G01L 1/125** (2013.01)

Citation (search report)

- [A] US 5086651 A 19920211 - WESTERMO BRUCE [US], et al
- [X] I.J.GARSHELIS ET AL.: "Magnetic observations of austenite-martensite transformations induced by torsional strain", JOURNAL OF APPLIED PHYSICS, vol. 53, no. 3, March 1982 (1982-03-01), NEW YORK, USA, pages 2407 - 2409

Designated contracting state (EPC)

DE FR IT

DOCDB simple family (publication)

EP 0612990 A2 19940831; **EP 0612990 A3 19950104**

DOCDB simple family (application)

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